## CITY AND BOROUGH OF JUNEAU

# Water and Wastewater Rate Study: Revenue Requirement Analysis

*Submitted by:*

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*Submitted to:*

Brian McGuire, Utilities Superintendent
155 Heritage Way
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*June 2025*

June 10, 2025

Brian McGuire, Utilities Superintendent
City and Borough of Juneau
155 Heritage Way
Juneau, AK 99801

**Re: Water and Wastewater Rate Study: Revenue Requirement Analysis**

Dear Mr. McGuire:

In this report, we present the detailed findings supporting the water and wastewater revenue requirement forecasts as presented at the April 30th, 2025 Finance Committee meeting. For each utility, four scenarios were developed to fund the utility's reduced capital plan as defined by DOWL and the City and Borough of Juneau ("CBJ"). Note the reduced wastewater capital plan developed by DOWL and CBJ was adjusted to defer certain wastewater projects by one year. During the April 30th meeting, the Finance Committee approved a motion to move forward with the fourth scenario (5% rate increase, strategic use of debt, and the need for future capital funding assistance).

At the June 9, 2025 Assembly meeting, the Assembly voted to enact 5% rate increases for both the water and wastewater utility for FY26 – FY30 per Ordinance 2025-27. The Assembly introduced Ordinance 2025-33 at the same meeting. If passed, the ordinance will put a general obligation bond of not to exceed $8,000,000 to finance water and wastewater utilities capital improvement projects before the voters on the October 7, 2025 ballot.

The table below outlines the monthly residential flat rates under that scenario. All other customers would increase based on the same 5% increase per year.

| Utility | Current | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| Water | $40.72 | $42.76 | $44.90 | $47.15 | $49.51 | $51.99 |
| Wastewater | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |

It has been a pleasure to work with you and other City and Borough staff on this effort. Please let us know if you have any questions or need additional information. Paul Quinn, the study's project manager, can be reached at (425) 502 – 6473 or at PaulQuinn@Bowman.com.

Sincerely,

Angie Sanchez Virnoche
Principal

Paul Quinn
Assistant Project Manager

Chase Bozett
Project Consultant

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# Exhibits

# 1.0 Introduction

## Purpose

The City and Borough of Juneau ("CBJ") contracted with DOWL, and FCS, a Bowman Company ("FCS") to conduct a rate study update for the water and wastewater utilities. The purpose of the study was to provide a rate forecast and proposed rate increases to cover the operating and capital costs of the drinking water and wastewater utilities for FY2026 to FY2030. The fiscal year can be defined as the period starting July 1 of the previous calendar year and concluding on June 30 of the noted fiscal year.

As a public utility, the Assembly determines the actual utility rates and makes decisions on other revenue to support the Utility (i.e. bonds, sales tax, grants, etc.). This study was conducted to inform that decision making process.

## Scope

The scope of the project included the following key elements for each utility:

- Develop the forecast of operating revenues and expenses to reflect the most recently approved budgets. Incorporate capital plans as identified by DOWL and CBJ. Develop a capital funding analysis that balances available funding from rate revenue, reserve funds, contributions, and additional debt, if needed.
- Evaluate cash flow needs to meet existing and anticipated new annual debt service requirements if applicable. Test the sufficiency of each system's current revenues in meeting all annual system obligations. Identify any projected shortfalls over the forecast period.
- Design a rate implementation strategy that meets each system's financial obligations over the multi-year planning horizon and provides a smooth and moderated impact to ratepayers.

## Approach

The methods used to complete the study are based on analytical principles that are generally accepted and widely followed throughout the industry – rates and charges should generate enough revenue to maintain self-supporting and financially viable utilities.

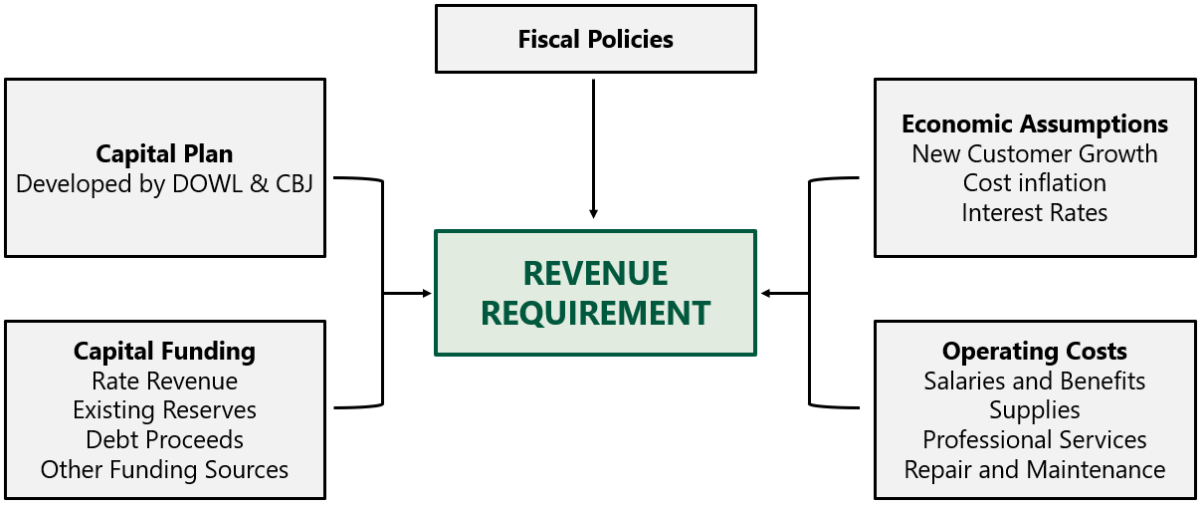
The key purpose of this rate study is to develop a funding plan ("revenue requirement") for the fiscal years of 2026 through 2030 which aligns with the current fiscal year and capital improvement plans (CIP) developed by DOWL & CBJ. A revenue requirement analysis forms the basis for a long-range financial plan and multi-year rate management strategy for each utility. It also enables CBJ to set utility rate structures which fully recover the total cost of operating each system: capital improvement and replacement, operations, maintenance, general administration, fiscal policy attainment, cash reserve management, and debt repayment. Linking rate levels to a financial plan such as this helps to enable not only sound financial performance for CBJ's utility enterprise funds, but also a clear and reasonable relationship between the rates imposed on utility customers and the costs incurred to provide the service.

A revenue requirements analysis includes the following core elements to form a complete portrayal of the utility's financial obligations.

- **Fiscal Policy Analysis.** Identifies formal and informal fiscal policies of CBJ to ensure that current policies are maintained, including reserve levels, capital / system replacement funding, and debt service coverage.
- **Capital Funding Plan.** Defines a strategy for funding CBJ's capital improvement program, including an analysis of available resources from rate revenues, debt financing, and any special resources that may be readily available (e.g., grants, bonds, sales tax, etc.).
- **Operating Forecast.** Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the system.
- **Sufficiency Testing.** Evaluates the sufficiency of revenues in meeting all financial obligations, including any coverage requirements associated with long-term debt.
- **Strategy Development.** Designs a forward-looking strategy for adjusting rates to fully fund all financial obligations on a periodic or annual basis over the projection period.

**Exhibit 1** outlines the general approach to the revenue requirement analysis.

**Exhibit 1. Revenue Requirement Overview**




Throughout the study, FCS worked with CBJ staff to arrive at rate conclusions that meet forecasted utility financial obligations, achieve intended goals and policies, comply with legal requirements, and adhere to industry best practices. Meetings were held with both DOWL and CBJ staff to validate input parameters, review interim findings and receive policy direction.

The methodology, key factors, conclusions, and recommendations for each of the key task areas of the study are summarized in this executive level report.

# 2.0 Fiscal Policies

The basic framework for evaluating utility revenue needs includes sound fiscal policies. Several policy topics are important to consider further as part of managing the finances of each utility, including operating reserves, capital reserves, and debt management.

## Reserves

Reserves are a key component of any utility financial strategy, as they provide flexibility to manage variations in costs and revenues that could otherwise have an adverse impact on ratepayers. When evaluating fund reserve levels and objectives, it is important to recognize that the value of reserves lies in their potential use. A reserve strategy that deliberately avoids any use of reserves negates their purpose. Fluctuation of reserve levels may indicate that the system is working, while lack of variation over many years strongly suggests that the reserves are, in fact, unnecessary. The current cash targets are $3 million for the water utility and $7 million for the wastewater utility. As part of the study, reserve targets were re-evaluated using industry best practices. For study purposes, resources are separated into operating and capital reserves.

### Operating Reserve

An operating reserve is designed to provide a liquidity cushion; it protects the utility from the risk of short-term variation in the timing of revenue collection or payment of expenses. Industry practice for utility operating reserves typically ranges from 45 days to 120 days of operating expenses, with the lower end more appropriate for utilities with stable revenue streams and the higher end of the range more appropriate for utilities with significant seasonal, consumption-based fluctuations, or infrequent billing cycles.

> ***Recommended Policy:*** *Based on discussions with CBJ staff, achieve a fiscal year-end minimum balance target of 90 days (25 percent) of total annual operating expenditures. This falls within the 45 to 120 day range that is used throughout the industry. The 90 day target takes into account the fixed and variable revenue mix of the utilities. This reserve helps protect the utilities against potential fluctuations in revenues.*
>
> *For Water, this equates to approximately $1.0 million in FY2025.*
>
> *For Wastewater, this equates to approximately $3.1 million in FY2025.*

### Capital Reserve

A capital reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve can also be used for other unanticipated capital needs including capital project cost overruns. Industry practices range from maintaining a balance equal to one to two percent of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry practice with the acceptable levels of risk as defined by CBJ.

***Recommended Policy:*** *Based on discussions with CBJ staff, achieve a year-end target of at least 2.0 percent of the original cost of fixed assets. A large portion of the utility's infrastructure is reaching the point where it will need to be replaced. Setting the target at two percent instead of one percent recognizes the life cycle of the utility's infrastructure. This target helps protect the utilities against unexpected capital costs or emergency capital needs particularly with the age of the CBJ utility infrastructure.*

*For Water, this equates to approximately $2.4 million in FY2025.*

*For Wastewater, this equates to approximately $2.3 million in FY2025.*

## Debt Management

Debt financing is a viable tool for capital funding. Compared with pay-as-you-go funding, debt smooths out the rate impact of a capital program by spreading costs over time. It also creates intergenerational equity – also referred to as "pay-as-you-use" because future customers who use the assets are the ones paying for them. However, debt should not be relied on too much as it carries the risk of default. Debt also reduces budget flexibility – cash-funded capital projects can be delayed if there is a revenue shortfall, but once the utility has issued debt, the debt service needs to be paid in good times or bad. While debt is a useful part of the capital funding toolbox, it needs to be monitored to ensure that the system does not become too heavily dependent on it. Debt service coverage is a financial metric that provides a benchmark to creditors regarding the ability of each utility to meet its debt obligations.

Debt service coverage is a requirement typically associated with revenue bonds and some State loans and is a financial measure of the ability to repay debt. A typical minimum coverage requirement for utility revenue bonds is 1.25. If CBJ issues revenue bond debt, the coverage requirements essentially require that CBJ collect enough revenue to meet operating expenses and not only pay debt service but collect an additional 25.00 percent above the bonded debt service. The extra revenue is a cushion that assures bondholders that CBJ has the financial resources to meet its debt service obligations. For financial planning purposes, the minimum debt service coverage ratio on revenue bond debt for the rate study is assumed at 1.25. This ratio is applied to debt service owed by CBJ on all current and future outstanding revenue bonds. CBJ's utilities do not currently hold any revenue bonds nor are they projected to during the forecast period.

**Exhibit 2** provides a summary of the recommended fiscal policies for CBJ.

**Exhibit 2. Summary of Fiscal Policies**

| Policy | Recommended Target |
|---|---|
| Operating Reserve | Meet a year-end balance target of 90 days (25 percent) of annual operating expenses, excluding transfers and debt service. |
| Capital Reserve | Maintain a year-end balance of at least 2 percent of original asset costs. |
| Debt Management | Maintain a debt service coverage ratio above 1.25 on all revenue bond debt service. |

# 3.0 Study Assumptions

The following section outlines the study assumptions used to develop the utility rate plans for both the water and wastewater utilities. Unless otherwise noted, these assumptions apply to both utilities.

## Reserve Targets

- **Operating Reserve.** Target a minimum annual ending target of 90 days of operating and maintenance. Any funds in excess of this amount can be used for capital needs.
- **Capital Reserve.** Target a minimum annual ending target of 2.0 percent of original cost assets. This reserve is available for capital emergencies or cost overruns. It is important to note this is a minimum target level. CBJ can elect to hold a balance greater than the target minimum for a variety of reasons, including if the aged infrastructure is undergoing extensive capital investments.

## Operating Revenue

- **Rate Revenue**. Based on projected actual revenues for FY2025 and FY2026 budget figures. Assumed customer growth was applied to the FY2026 budget figures to project revenues over the forecast period.
- **Non-rate Revenue**. Non-rate revenue consists primarily of permit revenues, utility billing finance charges, interest earnings, and other miscellaneous revenues.
  - » Specific to the water utility, water hydrant and reservoir maintenance revenues are forecasted for $900,000 in FY2025 and $950,000 for FY2026 and through the end of the forecast period. These revenues are paid to the utility as compensation for fire protection services it provides.
- **Customer Growth**. No growth was assumed during the forecast period based on discussions with CBJ staff and population projections published by the Alaska Department of Labor and Workforce Development in their July 2024 publication *Alaska Population Projections*.
- **Interest Earnings.** Projected interest earnings are based on the projected actuals for FY2025 and the FY2026 budget. Starting in FY2027, the analysis assumes interest earnings equal to unused fund balances multiplied by the projected interest rate. Interest rates are projected at 1.00 percent for FY2027, decreasing to 0.50 percent for the remainder of the forecast period. The projections are based on discussions with CBJ staff.

## O&M Expenses

The O&M expense forecast largely relies on the FY2026 budget as the baseline for the forecast. Individual line items in the budget were adjusted each year by using one of the following applicable factors:

- **General Cost Inflation**. 4.00 percent in all years based on historical Consumer Price Index (CPI) trends and also discussions with CBJ staff.
- **Construction Cost Inflation**. Applies to cost estimates provided by DOWL in FY2024 dollars. 7.00 percent annual inflation in FY2025 and FY2026 followed by 5.00 percent annually through the rest of the forecast period. Based on discussions with CBJ staff and DOWL.
- **Labor Cost Inflation**. 4.00 percent in all years of the forecast based on discussions with CBJ staff.
- **Benefit Cost Inflation**. 4.00 percent in all years of the forecast based on discussions with CBJ staff.

- **Contractual Services Inflation**. *(Wastewater Only)* 5.00 percent in all years of the forecast based on discussions with CBJ staff.

It should be noted that these inflation factors are lower than observed in recent years. The expectation for the rate study is that inflation will trend closer towards long term averages than what has occurred in recent years.

## Debt Obligations

- **Existing Debt.** Both utilities are currently in the process of repaying multiple loans from the Alaska Department of Environmental Conservation (DEC).
  - » Water: The utility has two outstanding loans in the forecast period. These loan obligations are approximately $250,000 per year.
  - » Wastewater: In FY2025 the utility is forecasted to make final repayments on two loans related to the Mendenhall Treatment Plant of approximately $140,000. From FY2026 through the end of the forecast period, the utility has three outstanding loans. The annual obligation of these three loans is approximately $1.2 million.
- **New Debt.** In scenarios assuming new debt, each utility is expected to issue the debt through the Alaska DEC. The anticipated terms of these loans are 20-year repayment at 2.75 percent based on the most recent available information from the DEC.

# 4.0 Water Utility

As previously mentioned, the main purpose of the revenue requirement analyses is to develop a funding plan ("revenue requirement") through FY2030. The water revenue requirement identifies the total revenue needed to fully fund the utility on a standalone basis considering current and projected financial obligations including operating expenditures, debt service, policy-driven commitments, and future capital project needs.

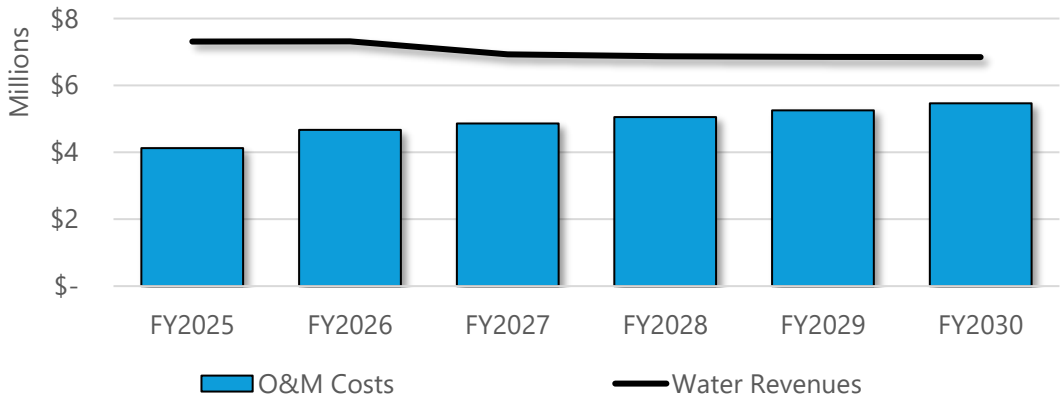
## Fund Balances

The water utility started FY2025 with available fund balances of slightly over $9.3 million from fund 514-01. Based on discussions with CBJ staff, no other beginning fund balances are available for use in the analysis.

## Operating Forecast

The operating forecast is built on estimated actuals for FY2025, budget information for 2026, and utilizes various inflation factors to forecast costs for future years of the forecast. **Exhibit 3** shows the operating costs compared to the forecasted operating revenues at existing rates.

**Exhibit 3. Water O&M vs Revenue**




Key findings from the operating revenue and expenses forecast include:

- Operating costs are expected to increase annually by approximately 4.0 percent during periods where costs are forecast (FY2027 – FY2030).
- Revenues slightly increase in FY2026 with an anticipated increase in revenue for water hydrant and reservoir maintenance. Revenues then decrease in FY2027 as interest earnings on fund balances are expected to decline.

## Existing Debt Obligations

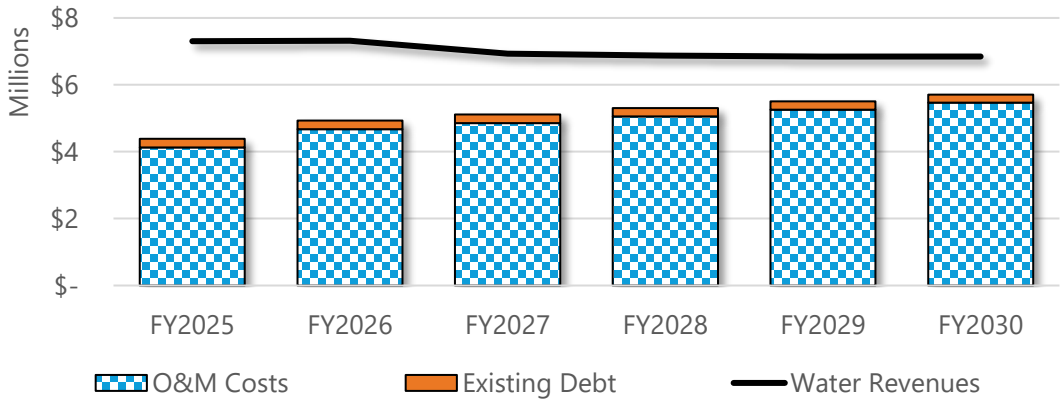
In addition to the utility's operating costs, the water utility has two existing DEC debt obligations. **Exhibit 4** summarizes each loan's annual obligation and maturity date.

**Exhibit 4. Summary of Water Existing Loans**

| Water Debt Obligation | Approximate Annual Obligation | Final Payment |
|---|---|---|
| DEC 445221 Egan Drive Water Main | $50,000 | FY2041 |
| DEC 445241 Douglas Highway Water Main | $200,000 | FY2042 |

**Exhibit 5** layers on the existing debt to the operating costs graphic shown in **Exhibit 3**.

**Exhibit 5. Water O&M and Existing Debt vs Revenue**

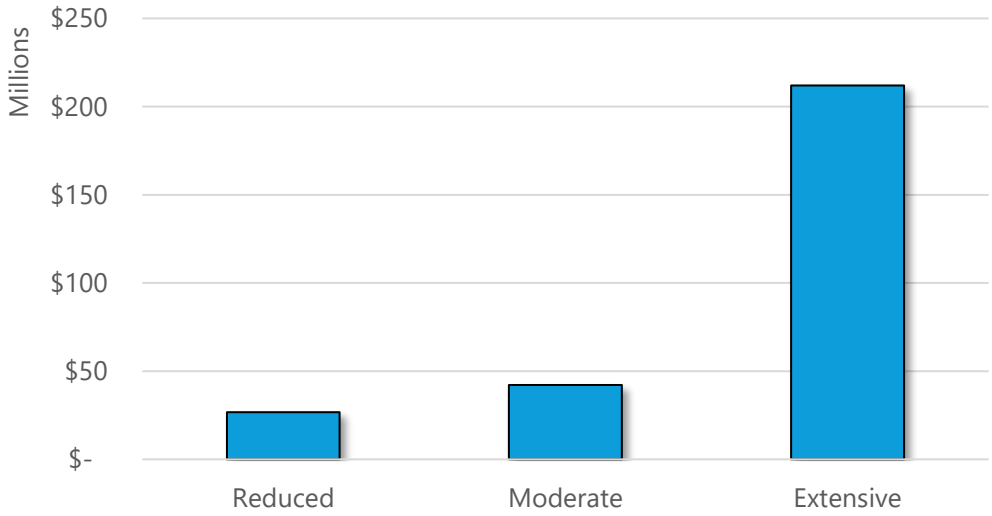



After O&M costs and existing debt obligations, the water utility maintains an operating surplus in all years forecasted. This operating surplus starts with a high of $2.9 million in FY2025 and decreases to $1.1 million by FY2030. These funds can be spent on capital projects or could be added to reserves to pay for future capital needs.

## Capital Improvement Plan

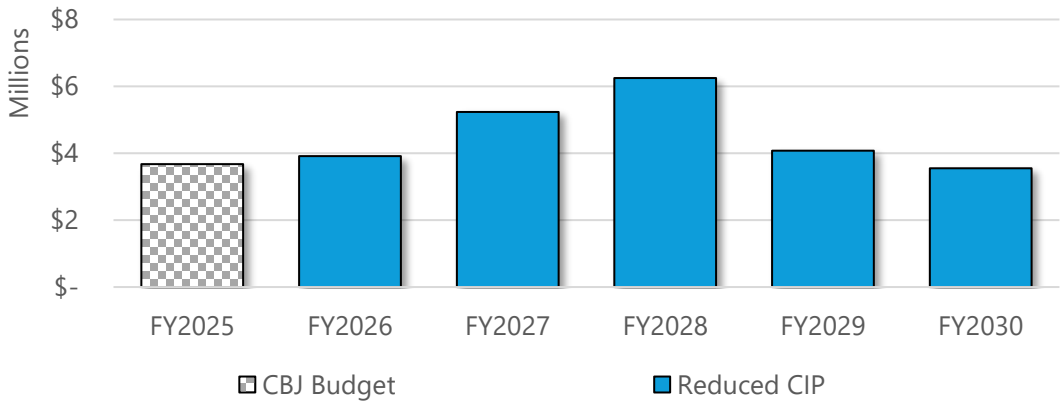
The water utility's capital improvement plan consists of two main inputs. The first includes expected spending based on the CBJ's budget for FY2025. The second was developed in partnership with DOWL and CBJ for the FY2026 to FY2030 time period. DOWL and CBJ developed three spending plans for both utilities. **Exhibit 6** shows the total FY2025 through FY2030 capital costs identified in each of the three plans escalated to year of construction. It should be noted the original CIP scenarios were amended to include additional costs in FY2026.

**Exhibit 6. FY2025 – FY2030 Water Capital Plans (escalated dollars)**




The CIP selected by CBJ for forecasting rates is the smallest of the three, the "Reduced" CIP". With this CIP, the rate impact to customers is lower than the alternatives but does come with risk to utility services. This risk is due to deferring many projects to later years in favor of only the most critical that address the most risk to infrastructure failure. **Exhibit 7** details the planned annual capital project spending in escalated dollars.

**Exhibit 7. Reduced Water CIP (escalated dollars)**




## Summary of Revenue Requirement

The operating forecast components of O&M expenses and existing debt service come together to form the multi-year revenue requirement. The revenue requirement compares the overall revenue available to the water system to the expenses to evaluate the sufficiency of rates on an annual basis. **Exhibit 8** and **Exhibit 9** provide a summary of the water system revenue requirement findings.

- **Solid black line:** Revenue at existing rates.
  - » Rate revenue is estimated to be roughly $5.7 million annually

  - » Non-rate revenues are on average $1.3 million annually (largely driven by water hydrant and reservoir maintenance revenue) but fluctuate due to interest earnings on fund balance.
- **Blue bar:** Cash operating expenses.
  - » Operating expenses are based on **Exhibit 3** detailing the water utility's forecasted O&M costs.
- **Orange bar:** Existing debt service.
  - » Existing debt service is approximately $250,000 per year from FY2025 to FY2030 as noted in **Exhibit 4.**
- **Green bar:** Net capital
  - » Represents the amount of capital the water utility must fund through rates, existing reserves, or other, currently unidentified, funding sources (new debt, grants, etc.).

**Exhibit 8. Water Utility Revenue Requirement Summary**

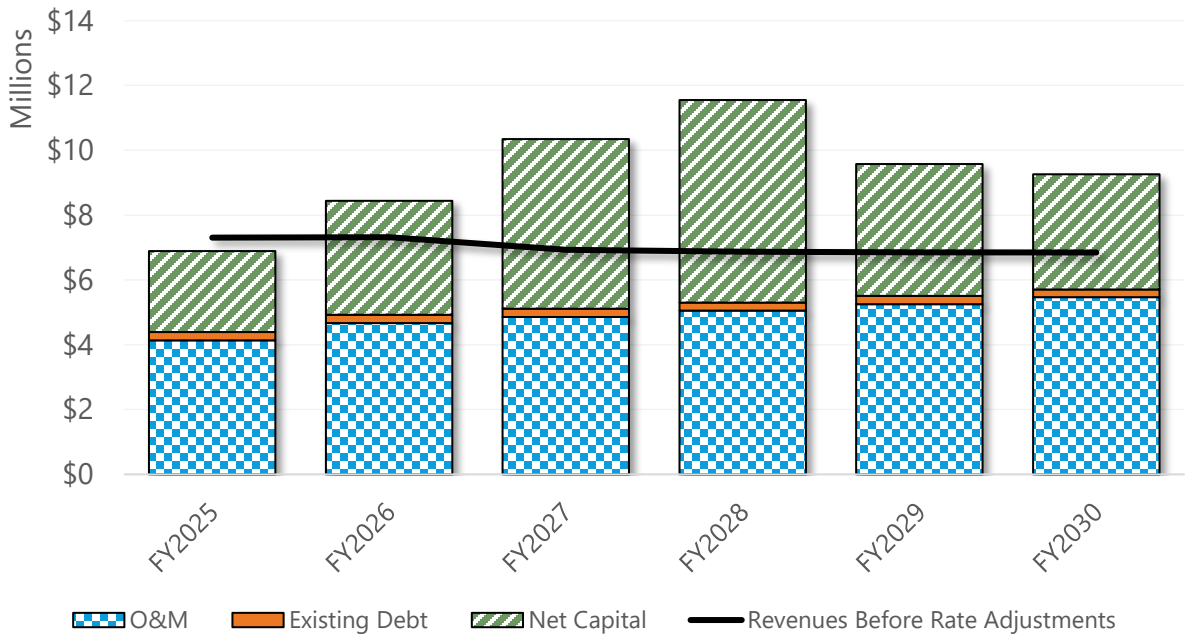
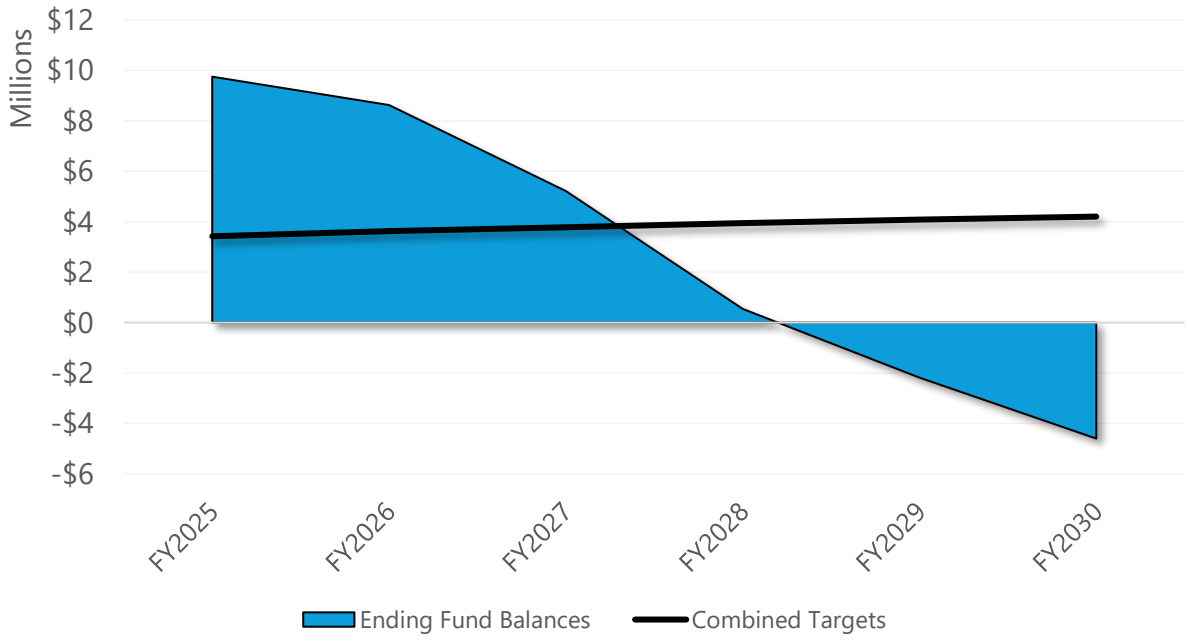


**Exhibit 9. Water Utility Ending Fund Balances**




- Current revenue levels are sufficient to meet cash operating expenses and existing debt service throughout the study period, however they are unable to fully support the capital costs identified.
  - » Existing revenues are able to cover the FY2025 capital costs. Beginning in FY2026, existing revenues are unable to fully support the capital program. Without rate adjustments or other funding proceeds, the utility would need to draw from existing reserves to fully fund the capital program.
  - » Without rate increases, the utility is anticipated to be below fund balance targets by FY2028 and run out of cash reserves completely by FY2029.
  - » The utility currently has no outstanding revenue debt obligations and is not considering revenue bonds at this time. Revenue bond debt coverage is not applicable during the forecast period.

## Water Scenarios

Four scenarios were developed for the April 30, 2025 Finance Committee meeting. Each scenario provides a funding strategy for the identified capital program. A summary of the four scenarios is described below.

### Scenario 1: Cash Funding

This scenario utilizes available fund balances and rate increases to fund the entire capital plan. As a result, this scenario has the largest impact to customers. Annual rate adjustments under this scenario are 9.25% from FY2026 to FY2030. This allows the utility to fund all operating obligations, the identified reduced capital plan, and meet cash reserves targets in all years except for FY2028, FY2029, and FY2030 when the utility is slightly below the capital reserve target.

### Scenario 2: Debt Funding

This scenario funds the capital program through a mixture of existing reserves, rate adjustments and new debt proceeds. Based on discussions with CBJ staff, 20% of the FY2026 – FY2030 capital plan is forecasted to be funded through State Revolving Fund (SRF) loans ($4.4 million). As a result, costs are spread over a 20-year period (at the cost of 2.75% annual interest). Annual rate adjustments under this plan are 6.00% from FY2026 to FY2030. This scenario allows the utility to fund all operating obligations, the identified reduced capital plan, and meet or exceed cash reserve targets in all years of the forecast period.

### Scenario 3: 5.00% Increases and Cash Funding

Rate adjustments under this scenario are capped at 5.00% per year. The capital plan would be funded through existing reserves, rate adjustments, and other funding sources to be identified at a later date. The total amount of other funding sources required would be approximately $4.3 million. Examples of potential other funding sources are grants, general obligations bonds (funded through property taxes), and sales tax allocations. This scenario allows the utility to fund all operating obligations, the identified reduced capital plan, and meet or exceed cash reserve targets in all years of the forecast period except FY2028 when the utility is projected to be slightly below the capital reserve target.

### Scenario 4: 5.00% Increases and Debt Funding

Like scenario three, rate adjustments under this scenario are capped at 5.00% per year. The capital plan would be funded through existing reserves, rate adjustments, SRF loans, and other funding sources to be identified at a later date. Based on discussions with CBJ staff, 20% of the FY2026 – FY2030 capital plan is forecasted to be funded through State Revolving Fund (SRF) loans ($4.4 million). Approximately $900,000 of other funding sources would be required under this scenario. This scenario allows the utility to fund all operating obligations, the identified reduced capital plan, and meet or exceed cash reserve targets in all years of the forecast period except for FY2029 when the utility is projected to be slightly below the capital reserve target.

### Scenario Summary

**Exhibit 10** highlights key information for each scenario.

**Exhibit 10. Water Scenario Summary**

| Updated Rate Adjustments | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|
| S1. Cash Funded | 9.25% | 9.25% | 9.25% | 9.25% | 9.25% |
| S2. Debt Funded | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% |
| S3. 5.00% & Cash Funded | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| S4. 5.00% & Debt Funded | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |

| State Loan Proceeds | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 | Total |
|---|---|---|---|---|---|---|
| S1. Cash Funded | $ - | $ - | $ - | $ - | $ - | **$ -** |
| S2. Debt Funded | 700,000 | 1,000,000 | 1,200,000 | 800,000 | 700,000 | **4,400,000** |
| S3. 5.00% & Cash Funded | - | - | - | - | - | **-** |
| S4. 5.00% & Debt Funded | 700,000 | 1,000,000 | 1,200,000 | 800,000 | 700,000 | **4,400,000** |

| Other Funding Needed | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 | Total |
|---|---|---|---|---|---|---|
| S1. Cash Funded | $ - | $ - | $ - | $ - | $ - | **$ -** |
| S2. Debt Funded | - | - | - | - | - | **-** |
| S3. 5.00% & Cash Funded | - | - | 1,700,000 | 1,700,000 | 900,000 | **4,300,000** |
| S4. 5.00% & Debt Funded | - | - | - | 300,000 | 600,000 | **900,000** |

## Rate Design

The principal consideration of rate design is for the rate structure to generate sufficient revenues for the system which are reasonably commensurate with the cost of providing service. The pricing structure is largely dictated by the objectives of the system. Current water customers either pay a flat rate every month or pay both a fixed rate and consumption rate per 1,000 gallons of water used. All proposed rates are adjusted across the board (ATB), meaning that all rates are increased by the same system-wide percentage increase.

**Exhibit 11**, **Exhibit 12**, and **Exhibit 13** show the existing FY2025 and proposed FY2026 - FY2030 rates under each scenario.

**Exhibit 11. Water Scenario 1 – Proposed Rates**

| Water – Scenario 1 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| **Monthly Charge** | | | | | | |
| Flat Residential Base | $40.72 | $44.49 | $48.61 | $53.11 | $58.02 | $63.39 |
| Flat Commercial Base | $40.72 | $44.49 | $48.61 | $53.11 | $58.02 | $63.39 |
| Metered Residential Base | $27.85 | $30.43 | $33.24 | $36.31 | $39.67 | $43.34 |
| Metered Commercial Base | $27.85 | $30.43 | $33.24 | $36.31 | $39.67 | $43.34 |
| Metered Large Commercial Base | $535.85 | $585.42 | $639.57 | $698.73 | $763.36 | $833.97 |
| Metered Bulk Water Base | $27.85 | $30.43 | $33.24 | $36.31 | $39.67 | $43.34 |
| **Volume Charge (per 1,000 gallons)** | | | | | | |
| Metered Residential (over 4,000 gallons) | $3.75 | $4.10 | $4.48 | $4.89 | $5.34 | $5.83 |
| Metered Commercial (over 4,000 gallons) | $3.75 | $4.10 | $4.48 | $4.89 | $5.34 | $5.83 |
| Metered Large Commercial (over 500,000 gallons) | $1.08 | $1.18 | $1.29 | $1.41 | $1.54 | $1.68 |
| Metered Bulk Water (all usage) | $3.75 | $4.10 | $4.48 | $4.89 | $5.34 | $5.83 |

**Exhibit 12. Water Scenario 2 – Proposed Rates**

| Water – Scenario 2 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| **Monthly Charge** | | | | | | |
| Flat Residential Base | $40.72 | $43.16 | $45.75 | $48.50 | $51.41 | $54.49 |
| Flat Commercial Base | $40.72 | $43.16 | $45.75 | $48.50 | $51.41 | $54.49 |
| Metered Residential Base | $27.85 | $29.52 | $31.29 | $33.17 | $35.16 | $37.27 |
| Metered Commercial Base | $27.85 | $29.52 | $31.29 | $33.17 | $35.16 | $37.27 |
| Metered Large Commercial Base | $535.85 | $568.00 | $602.08 | $638.20 | $676.49 | $717.08 |
| Metered Bulk Water Base | $27.85 | $29.52 | $31.29 | $33.17 | $35.16 | $37.27 |
| **Volume Charge (per 1,000 gallons)** | | | | | | |
| Metered Residential (over 4,000 gallons) | $3.75 | $3.98 | $4.22 | $4.47 | $4.74 | $5.02 |
| Metered Commercial (over 4,000 gallons) | $3.75 | $3.98 | $4.22 | $4.47 | $4.74 | $5.02 |
| Metered Large Commercial (over 500,000 gallons) | $1.08 | $1.14 | $1.21 | $1.28 | $1.36 | $1.44 |
| Metered Bulk Water (all usage) | $3.75 | $3.98 | $4.22 | $4.47 | $4.74 | $5.02 |

**Exhibit 13. Water Scenarios 3 and 4 – Proposed Rates**

| Water – Scenarios 3 and 4 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| **Monthly Charge** | | | | | | |
| Flat Residential Base | $40.72 | $42.76 | $44.90 | $47.15 | $49.51 | $51.99 |
| Flat Commercial Base | $40.72 | $42.76 | $44.90 | $47.15 | $49.51 | $51.99 |
| Metered Residential Base | $27.85 | $29.24 | $30.70 | $32.24 | $33.85 | $35.54 |
| Metered Commercial Base | $27.85 | $29.24 | $30.70 | $32.24 | $33.85 | $35.54 |
| Metered Large Commercial Base | $535.85 | $562.64 | $590.77 | $620.31 | $651.33 | $683.90 |
| Metered Bulk Water Base | $27.85 | $29.24 | $30.70 | $32.24 | $33.85 | $35.54 |
| **Volume Charge (per 1,000 gallons)** | | | | | | |
| Metered Residential (over 4,000 gallons) | $3.75 | $3.94 | $4.14 | $4.35 | $4.57 | $4.80 |
| Metered Commercial (over 4,000 gallons) | $3.75 | $3.94 | $4.14 | $4.35 | $4.57 | $4.80 |
| Metered Large Commercial (over 500,000 gallons) | $1.08 | $1.13 | $1.19 | $1.25 | $1.31 | $1.38 |
| Metered Bulk Water (all usage) | $3.75 | $3.94 | $4.14 | $4.35 | $4.57 | $4.80 |

# 5.0 Wastewater Utility

This section outlines the revenue requirement and identifies the total revenue needed to fully fund the utility on a standalone basis considering current and projected financial obligations including operating expenditures, debt service, policy-driven commitments, and future capital project needs.

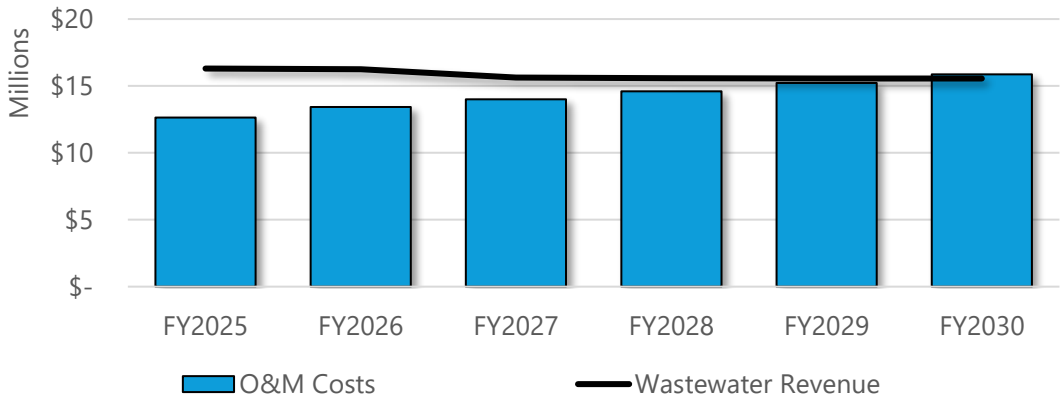
## Fund Balances

The wastewater utility started FY2025 with available fund balances of approximately $9.2 million from fund 519-01. Based on discussion with CBJ staff, no other beginning fund balances are available for use in the analysis.

## Operating Forecast

The wastewater operating forecast is also built on estimated actuals for FY2025, budget information for FY2026, and utilizes various inflation factors to forecast costs for future years of the forecast. **Exhibit 14** graphically shows the operating costs compared to the forecasted operating revenue before rate adjustments.

**Exhibit 14. Wastewater O&M vs Revenues**




Key findings from the operating revenue and expenses forecast include:

- Operating costs are expected to increase by about 4.3 percent annually during periods which costs are forecast (FY2027 through FY2030).
- Revenues decrease in FY2027 as interest earnings on unused fund balances are expected to decline.
- The wastewater utility's operations and maintenance costs exceed revenues starting FY2030.

## Existing Debt Obligations

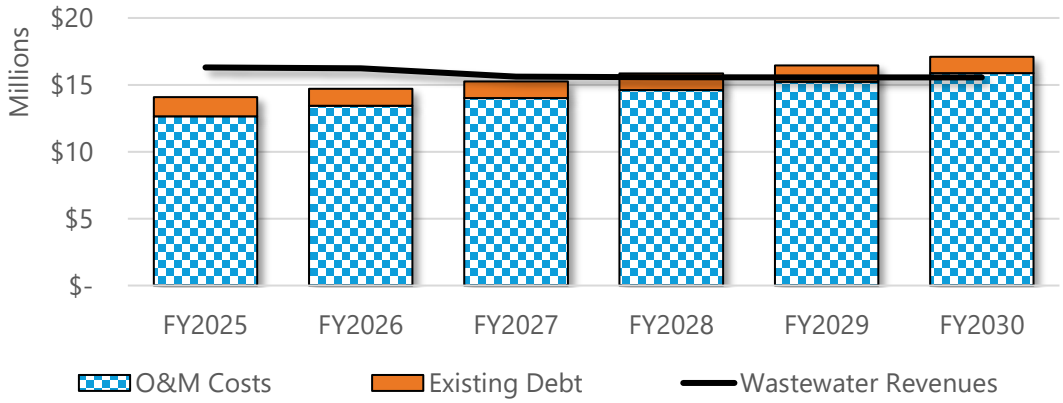
In addition to the utility's operating costs, the wastewater utility has five existing DEC debt obligations. **Exhibit 15** summarizes each loan's annual obligation and maturity date.

**Exhibit 15. Summary of Wastewater Existing Loans**

| Wastewater Debt Obligation | Annual Obligation | Final Payment |
|---|---|---|
| DEC 445101 Mendenhall Treatment Plant | $80,000 | FY2025 |
| DEC 445141 Mendenhall Treatment Plant | $65,000 | FY2025 |
| DEC 445171 Bayview Sewer System | $50,000 | FY2033 |
| DEC 445241 Twin Lakes Pump Station | $35,000 | FY2033 |
| DEC 445251 Biosolids Treatment Project | $1,200,000 | FY2041 |

**Exhibit 16** layers on the existing debt to the operating cost graphic shown in **Exhibit 14**.

**Exhibit 16. Wastewater O&M and Existing Debt vs Revenue**

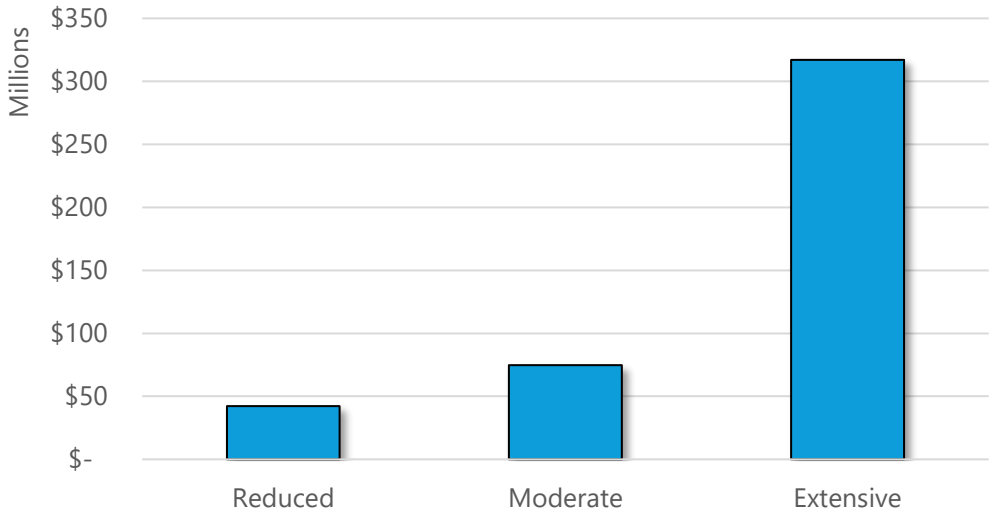



After adding existing debt obligations, the wastewater utility is forecasted to be operationally deficient beginning in FY2028. The projected FY2028 operating deficiency is approximately $300,000, growing to $1.5 million by FY2030.

## Capital Improvement Plan

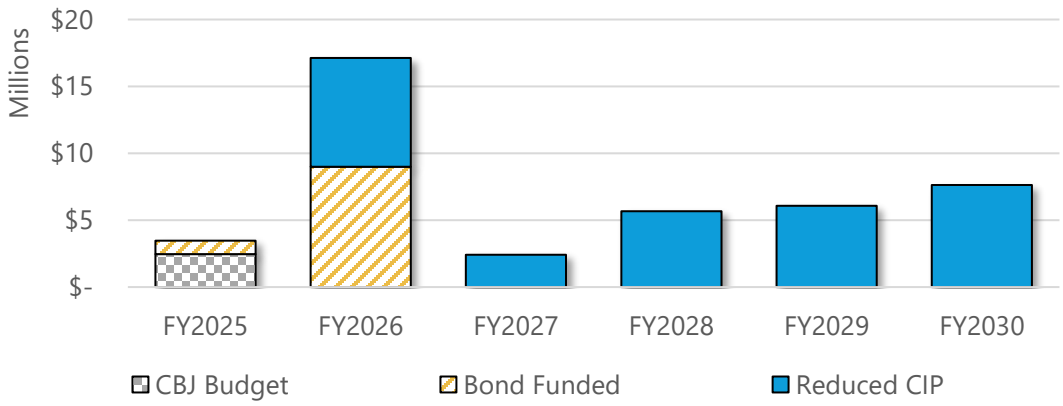
Like the water utility, the wastewater utility capital plan comes through a combination of the CBJ's budgeted capital expenditures for FY2025 as well as the three capital plans developed by DOWL and CBJ for FY2026 through FY2030. CBJ staff adjusted the "Reduced CIP" option by deferring certain capital costs by one year, as well as adding costs to FY2026. **Exhibit 17** shows the total FY2025 through FY2030 capital costs identified in each of the three capital plan options escalated to year of construction.

**Exhibit 17. FY2025 – FY2030 Wastewater Capital Plans (escalated dollars)**




The CIP selected by CBJ for forecasting rates is the "Reduced" CIP. Like water, this results in the lowest rate impact compared with the other two capital plans but does come with risk to utility service. All wastewater capital plans include the $10.0 million JD Clarifier project. In October 2024, Juneau citizens voted to approve a bond to fund the project. The bond will be repaid through property taxes. As a result, the JD Clarifier project will be completed but will not be funded through utility funds. **Exhibit 18** details the planned annual capital project spending escalated to year of construction.

**Exhibit 18. Reduced Wastewater CIP (escalated dollars)**




## Summary of Revenue Requirement

The operating forecast components of O&M expenses and existing debt service come together to form the multi-year revenue requirement. The revenue requirement compares the overall revenue available to the wastewater system to the expenses to evaluate the sufficiency of rates on an annual basis. **Exhibit 19** and **Exhibit 20** provide a summary of the wastewater system revenue requirement findings.

- **Solid black line:** Revenue at existing rates.

  - » Rate revenue before adjustments is estimated to be approximately $15.5 million annually.
  - » Non-rate revenues average approximately $340,000 per year but fluctuate due to interest earnings on unused fund balances.
- **Blue bar:** Cash operating expenses.
  - » Operating expenses are based on **Exhibit 14** detailing the wastewater utility's forecasted O&M costs.
- **Orange bar:** Existing debt service.
  - » Existing debt service is approximately $1.2 million to $1.4 million during the forecast period as shown in **Exhibit 15.**
- **Green bar:** Net capital
  - » Represents the amount of capital the wastewater utility must fund through rates, existing reserves, or other, currently unidentified, funding sources (new debt, grants, etc.)

**Exhibit 19. Wastewater Utility Revenue Requirement Summary**

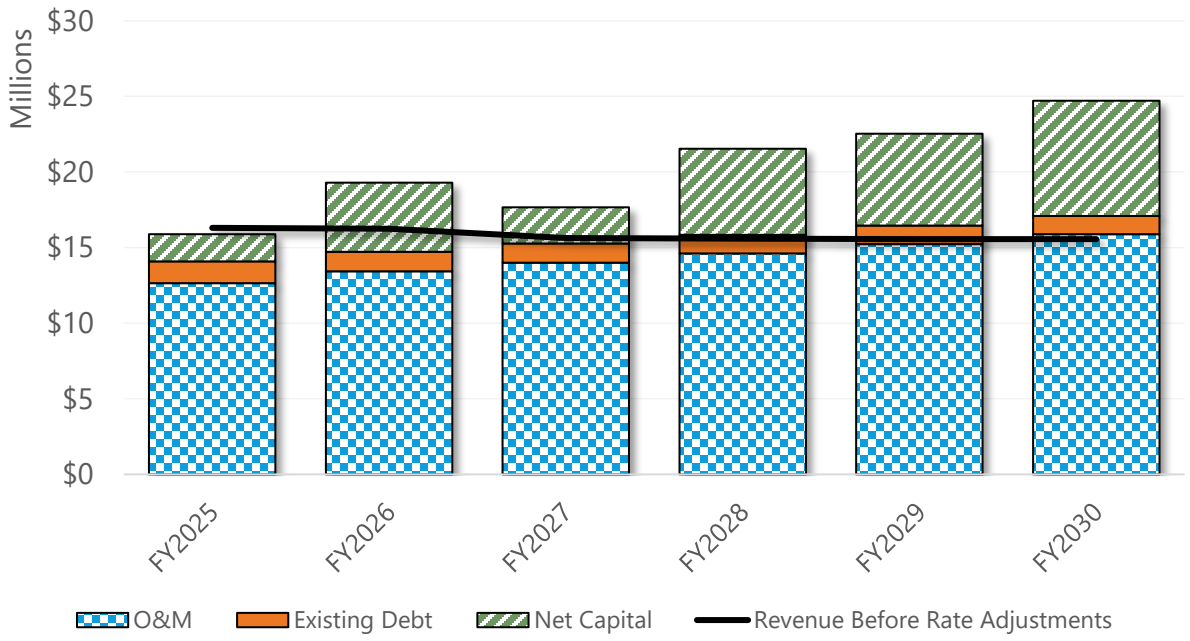
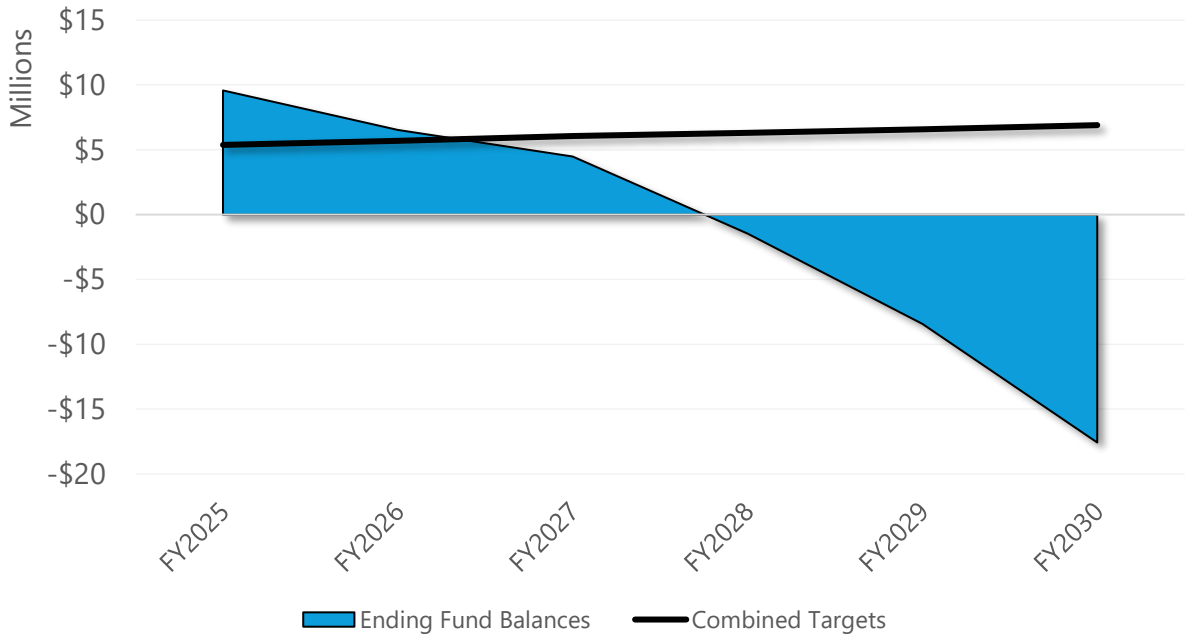


**Exhibit 20. Wastewater Utility Ending Fund Balances**




- Current revenue levels are insufficient in meeting cash operating expenses, existing debt service, and the identified capital plan throughout the forecast period.
  - » Operating expenses and debt service costs are expected to exceed revenues at existing rates beginning in FY2028. This operating deficiency is projected to be approximately $300,000 in FY2028, growing to $1.5 million by FY2030.
  - » Existing revenues are able to cover the FY2025 capital costs. Beginning in FY2026, existing revenues are unable to fully support the capital program. Without rate adjustments or other funding proceeds, the utility would need to draw from existing reserves to fully fund the capital program.
  - » Without rate increases, the utility is anticipated to be below fund balance targets by FY2027 and run out of cash reserves completely by FY2028.
  - » The utility currently has no outstanding revenue debt obligations and is not considering revenue bonds at this time. Revenue bond debt coverage is not applicable during the forecast period.

## Wastewater Scenarios

Four scenarios were developed for the April 30, 2025 Finance Committee meeting. Each scenario provides a strategy to mitigate the expected operational deficiency as well as fund the identified capital program. A summary of the four scenarios is described below.

### Scenario 1: Cash Funding

This scenario utilizes available fund balances and rate increases to fund the entire capital plan. As a result, this scenario results in the largest impact to customers. For FY2026 and FY2027 the increases are 9.75% annually. For FY2028 to FY2030, annual increases are 9.25%. This scenario allows the utility to fund all operating obligations,

fully fund the identified reduced capital program, and meet or exceed cash reserve targets in all years of the forecast period.

### Scenario 2: Debt Funding

This scenario funds the capital program through a mixture of existing reserves, rate adjustments and new debt proceeds. Based on discussions with CBJ staff, 20% of the FY2026 – FY2030 capital plan is forecasted to be funded through State Revolving Fund (SRF) loans ($4.8 million). As a result, costs are spread over a 20-year period (at the cost of 2.75% annual interest). Annual rate adjustments under this plan are 8.25% from FY2026 to FY2028 followed by annual increases of 7.75% for the remainder of the forecast period. This scenario allows the utility to fund all operating obligations, fully fund the identified reduced capital program, and meet or exceed cash reserve targets in all years of the forecast period except for FY2030 when the utility is slightly below the capital reserve target.

### Scenario 3: 5.00% Increases and Cash Funding

Rate adjustments under this scenario are capped at 5.00% per year. The capital plan would be funded through existing reserves, rate adjustments, and other fundings sources to be identified at a later date. The total amount of other funding sources required to keep annual rate adjustments at 5.00% is approximately $12.4 million. Examples of potential other funding sources are grants, general obligations bonds (funded through property taxes), and sales tax allocations. This scenario allows the utility to fund all operating obligations, fully fund the identified reduced capital program, and meet or exceed cash reserve targets in all years of the forecast period except for FY2028 and FY2030 when the utility is slightly below the capital reserve target.

### Scenario 4: 5.00% Increases and Debt Funding

Like scenario three, rate adjustments under this scenario are capped at 5.00% per year. The capital plan would be funded through existing reserves, rate adjustments, SRF loans, and other funding sources to be identified at a later date. Based on discussions with CBJ staff, 20% of the FY2026 – FY2030 capital plan is forecasted to be funded through State Revolving Fund (SRF) loans ($4.8 million). Approximately $8.5 million of other funding sources would be required under this scenario. This scenario allows the utility to fund all operating obligations, fully fund the identified reduced capital program, and meet or exceed cash reserve targets in all years of the forecast period except for FY2028 when the utility is slightly below the capital reserve target.

### Scenario Summary

**Exhibit 21** highlights key information for each scenario.

**Exhibit 21. Wastewater Scenario Summary**

| Updated Rate Adjustments | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|
| S1. Cash Funded | 9.75% | 9.75% | 9.25% | 9.25% | 9.25% |
| S2. Debt Funded | 8.25% | 8.25% | 8.25% | 7.75% | 7.75% |
| S3. 5.00% & Cash Funded | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |
| S4. 5.00% & Debt Funded | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |

| State Loan Proceeds | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 | Total |
|---|---|---|---|---|---|---|
| S1. Cash Funded | $ - | $ - | $ - | $ - | $ - | **$ -** |
| S2. Debt Funded | 500,000 | 500,000 | 1,100,000 | 1,200,000 | 1,500,000 | **4,800,000** |
| S3. 5.00% & Cash Funded | - | - | - | - | - | **-** |
| S4. 5.00% & Debt Funded | 500,000 | 500,000 | 1,100,000 | 1,200,000 | 1,500,000 | **4,800,000** |

| Other Funding Needed | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 | Total |
|---|---|---|---|---|---|---|
| S1. Cash Funded | $ - | $ - | $ - | $ - | $ - | **$ -** |
| S2. Debt Funded | - | - | - | - | - | **-** |
| S3. 5.00% & Cash Funded | - | - | 3,200,000 | 4,000,000 | 5,200,000 | **12,400,000** |
| S4. 5.00% & Debt Funded | - | - | 1,400,000 | 3,000,000 | 4,100,000 | **8,500,000** |

## Rate Design

The principal consideration of rate design is for the rate structure to generate sufficient revenue for the system which are reasonably commensurate with the cost of providing service. The pricing structure is largely dictated by the objectives of the system. Like water, current customers either pay a flat rate every month or are assessed both a fixed monthly component and volumetric component per 1,000 gallons of usage. All proposed rates are adjusted across the board (ATB), meaning that all rates are increased by the same system-wide increase.

**Exhibit 22**, **Exhibit 23**, and **Exhibit 24** show the existing FY2025 and proposed FY2026 - FY2030 rates under each scenario.

**Exhibit 22. Wastewater Scenario 1 – Proposed Rates**

| Wastewater – Scenario 1 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| **Monthly Charge** | | | | | | |
| Flat Residential Base | $106.08 | $116.42 | $127.77 | $139.59 | $152.50 | $166.61 |
| Flat Commercial Base | $106.08 | $116.42 | $127.77 | $139.59 | $152.50 | $166.61 |
| Metered Residential Base | $106.08 | $116.42 | $127.77 | $139.59 | $152.50 | $166.61 |
| Metered Commercial Domestic Base | $106.08 | $116.42 | $127.77 | $139.59 | $152.50 | $166.61 |
| Metered Commercial High Base | $106.08 | $116.42 | $127.77 | $139.59 | $152.50 | $166.61 |
| **Volume Charge (per 1,000 gallons)** | | | | | | |
| Metered Residential (over 4,000 gallons) | $14.11 | $15.49 | $17.00 | $18.57 | $20.29 | $22.17 |
| Metered Commercial Domestic (over 4,000 gallons) | $14.11 | $15.49 | $17.00 | $18.57 | $20.29 | $22.17 |
| Metered Commercial High (over 4,000 gallons) | $14.11 | $15.49 | $17.00 | $18.57 | $20.29 | $22.17 |
| Septic (all usage) | $40.28 | $44.21 | $48.52 | $53.01 | $57.91 | $63.27 |

**Exhibit 23. Wastewater Scenario 2 – Proposed Rates**

| Wastewater – Scenario 2 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| **Monthly Charge** | | | | | | |
| Flat Residential Base | $106.08 | $114.83 | $124.30 | $134.55 | $144.98 | $156.22 |
| Flat Commercial Base | $106.08 | $114.83 | $124.30 | $134.55 | $144.98 | $156.22 |
| Metered Residential Base | $106.08 | $114.83 | $124.30 | $134.55 | $144.98 | $156.22 |
| Metered Commercial Domestic Base | $106.08 | $114.83 | $124.30 | $134.55 | $144.98 | $156.22 |
| Metered Commercial High Base | $106.08 | $114.83 | $124.30 | $134.55 | $144.98 | $156.22 |
| **Volume Charge (per 1,000 gallons)** | | | | | | |
| Metered Residential (over 4,000 gallons) | $14.11 | $15.27 | $16.53 | $17.89 | $19.28 | $20.77 |
| Metered Commercial Domestic (over 4,000 gallons) | $14.11 | $15.27 | $16.53 | $17.89 | $19.28 | $20.77 |
| Metered Commercial High (over 4,000 gallons) | $14.11 | $15.27 | $16.53 | $17.89 | $19.28 | $20.77 |
| Septic (all usage) | $40.28 | $43.60 | $47.20 | $51.09 | $55.05 | $59.32 |

**Exhibit 24. Wastewater Scenarios 3 and 4 – Proposed Rates**

| Wastewater – Scenarios 3 and 4 | FY2025 | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| **Monthly Charge** | | | | | | |
| Flat Residential Base | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |
| Flat Commercial Base | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |
| Metered Residential Base | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |
| Metered Commercial Domestic Base | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |
| Metered Commercial High Base | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |
| **Volume Charge (per 1,000 gallons)** | | | | | | |
| Metered Residential (over 4,000 gallons) | $14.11 | $14.82 | $15.56 | $16.34 | $17.16 | $18.02 |
| Metered Commercial Domestic (over 4,000 gallons) | $14.11 | $14.82 | $15.56 | $16.34 | $17.16 | $18.02 |
| Metered Commercial High (over 4,000 gallons) | $14.11 | $14.82 | $15.56 | $16.34 | $17.16 | $18.02 |
| Septic (all usage) | $40.28 | $42.29 | $44.40 | $46.62 | $48.95 | $51.40 |

# 6.0 Conclusion

This section provides an overall summary of the rate study process and results for the water and wastewater utilities. CBJ should use the study findings as a living document, continuously comparing the study outcomes to actual revenue and expenses. Any significant or unexpected changes will require adjustments to the rate strategy proposed.

## Methodology

The rate study process consists of two main elements: the revenue requirement and rate design.

- **Revenue requirement.** Based on CBJ's operating budgets for each utility as well as each utility's capital improvement plan, the total revenue requirements were projected for each year from FY2025 through FY2030. This revenue requirement provides the necessary rate adjustment in each year to cover the full cost of each utility, including operating costs, debt service costs, rate funding for capital, and the funding needed to comply with fiscal policies.
- **Rate Design.** Using the overall revenue needed in each year from FY2025 through FY2030, a rate schedule was designed for each utility and scenario. Proposed rates were adjusted across the board, that is all customers see the same proportional rate adjustments in each year. The proposed rate schedules were intended to ensure sufficient revenue collection to fund the requirements of each utility.

## April 30th, 2025 Finance Committee Presentation Rate Study Results

- **Water Utility.** The results of the revenue requirement analysis indicate that the water utility is able to cover operating and existing debt service expenses but is unable to support the capital program. Four scenarios were developed to fund the identified reduced capital plan. The first evaluated the rates needed to fully cash fund the plan while the second assumed 20% SRF funding to mitigate impacts to customers. Additionally, the third and fourth scenarios looked at the impact of capping rate increases at 5.00% annually. Scenario 3 assumed no SRF funding while Scenario 4 maintained the 20% SFR funding from Scenario 2.
- **Wastewater Utility.** The results of the revenue requirement analysis indicated the wastewater utility will enter an operating deficit beginning in FY2028 and will be unable to support the capital program under the existing rate schedule. Similar to the water utility, four scenarios were developed to address the projected operating deficit and fund the identified reduced capital plan. The first evaluated the rates needed to fully cash fund the plan while the second assumed 20% SRF funding to mitigate impacts to customers. Additionally, the third a fourth scenarios looked at the impact of capping the utility increases at 5.00% annually. Scenario 3 assumed no SRF funding while Scenario 4 maintained the 20% SFR funding from Scenario 2.

As part of the April 30th, 2025 Finance Committee meeting, a motion was approved to move forward with Scenario 4 for both the water and wastewater utility. **Exhibit 25** shows the proposed monthly flat rates under Scenario 4 for both utilities.

**Exhibit 25. Proposed Flat Rates Under Scenario 4**

| Utility | Current | FY2026 | FY2027 | FY2028 | FY2029 | FY2030 |
|---|---|---|---|---|---|---|
| Water | $40.72 | $42.76 | $44.90 | $47.15 | $49.51 | $51.99 |
| Wastewater | $106.08 | $111.38 | $116.95 | $122.80 | $128.94 | $135.39 |

As a public utility, final funding and rate decisions are made by the Assembly after public hearings. This work has been done to inform that decision-making process.

## June 9th, 2025 Regular Assembly Meeting

At the June 9, 2025 Assembly meeting, the Assembly voted to enact 5% rate increases for both the water and wastewater utility for FY26 – FY30 per Ordinance 2025-27. The first rate increase will take effect on August 1, 2025. The Assembly introduced Ordinance 2025-33 at the same meeting. If passed, the ordinance will put a general obligation bond of not to exceed $8,000,000 to finance water and wastewater utilities capital improvement projects before the voters on the October 7, 2025 ballots.